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English 102. DEI

Schafersman Summary, Revision #2, Final Draft

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Target Audience: College students looking to enhance
their ability to think beyond their own scopes.

Thinking with Science

Steven D. Schafersman published a paper in January 1994 titled "An Introduction to Science: Scientific Thinking and the Scientific Method." His views have great points. Science is all about exploring and figuring out how nature works. It's not just a bunch of facts or ideas thrown together. Instead, science helps us gain solid knowledge of the world around us by observing and studying things closely. When one uses the scientific method to study or investigate nature or the universe, one is practicing scientific thinking. (Schafersman, Pg. 1).

Schafersman discusses the Three Central Components of Scientific and Critical Thinking. Schafersman says thinking is based on three things: Empirical Evidence (empiricism), Logical Reasoning (rationalism), and Skeptical Attitude (skepticism). Empiricism uses all 5 senses as evidence; this makes it repeatable and allows anyone to produce evidence in this

mindset. A common alternative to this is Authoritarian evidence, from people, books, commercials, etc. Rationalism, logical thinking, allows us to reason correctly, but it is a complex topic and not easily learned.

(Schafersman, Pg. 4). Skepticism, you are being unsure, questioning every angle before coming to a decision. And then questioning again.

Schafersman also says that self-deception and self-deception by others are among the most common human failings. Many people believe that skeptics are close-minded. That's not true; they are open to change.

As you continue to read his journal, you will find his steps of Scientific thinking with Critical thinking. These are just the steps taken. 1) One must ask a meaningful question or identify a significant problem. 2) One must next gather relevant information to attempt to answer the question or solve the problem by making observations. 3) One can propose a solution or answer to the problem or question. 4) One must test the hypothesis before it is corroborated and given any real validity. 5) If the hypothesis fails the test, it must be rejected and either abandoned or modified. 6) The final step of the scientific method is to construct, support, or cast doubt on the scientific theory. (Pg. 6-8 Schafersman)

Work Cited

Schafersman, Steven D. "An Introduction to Science" *Scientific Thinking and the Scientific Method*. January 1994, edited 3, February 2012, pp. 1-8